

# Glossary

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**AFFECT/EFFECT**--To affect (a verb) is to bring about a change. The effect (usually a noun) is the result.

**ANADROMOUS FISH** -- Species that are hatched in freshwater, mature in saltwater, and return to freshwater to spawn.

**ALEVIN** -- Newly hatched juvenile salmonid with visible yolk sac.

**APPROPRIATION OF WATER**--1) The act of capturing and applying water to a beneficial use within a prescribed time. 2) A water right established under the doctrine of prior appropriation

**AQUIFER**--Hydraulically interconnected, recognizable or mappable, saturated geological materials (rock or sediment) that are sufficiently conductive to provide a usable supply of water to a well or spring and that are hydraulically distinctive from surrounding geologic materials. Aquifers are distinguished by a combination of hydraulic properties, geologic character, hydraulic boundaries, hydraulic head, and water quality.

**BASE FLOW**--Streamflow originating entirely from ground water discharging to the stream.

**BENEFICIAL USE**—Use of water for domestic, stock watering, industrial, commercial, agriculture, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational and thermal power production, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state.

**BIODIVERSITY** -- The variety and abundance of species, their genetic composition, and the natural communities, ecosystem, and landscapes in which they occur.

**BIOLOGICAL ASSESSMENT**—Information prepared by, or under the direction of, a Federal agency to determine whether a proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat. Biological assessments must be prepared for “major construction activities.”

**BIOLOGICAL OPINION**—A written statement provided to the affected federal agency (NMFS or USFWS) that details how the reviewed action affects the species or its critical habitat. If jeopardy or adverse modification of critical habitat is found to be a result of the activity, the opinion will contain suggestions for reasonable and prudent alternatives for that action which would minimize its impacts and allow the activity to proceed.

**BROODSTOCK** -- Those adult salmonids that are destined to be the parents for a particular stock or smaller group of fish.

**BUFFER STRIP**—The vegetation along a stream left intact after logging.

**CANDIDATE SPECIES**—This term refers to a species for which concerns remain regarding their status, but for which more information is needed before they can be proposed for listing.

**CANOPY**—The branches and leaves that hang over the water.

**CARRYING CAPACITY** -- The maximum number of individuals or biomass of a given species or complex of species of fishes that a limited and specific aquatic habitat may support during a stated interval of time.

**CATCH** -- The act of landing a fish at which point the fisher has the option of releasing or retaining it.

**CHANNEL**—A waterway with obvious banks that contains moving water at least part of the year.

**CHANNELIZED** -- A portion of a river channel that has been enlarged or deepened, and often has armored banks.

**CITIZEN SUIT**—A civil suit filed to force the proper implementation of the ESA, CWA or stop the activity of any person, including the United States and any other governmental body or agency, who is alleged to be in violation of any part of the ESA, CWA or a regulation issued under either act.

**CRITICAL HABITAT**—The ecosystem elements that must be present and properly functioning if the continued existence of the species in question to be assured. The critical habitat is described and designated by the lead federal regulatory agency making a status determination for a species. Critical habitat can be designated in areas that are not being used by the species in question at the time the species is listed if the habitat is necessary for the conservation of the species. Critical habitat designations usually accompany final listing decisions, but may be delayed under certain circumstances.

**CRITICAL STOCK** -- A stock of fish experiencing production levels that are so low that permanent damage to the stock is likely or has already occurred.

**DEGRADATION**—The process by which a streambed is lowered in elevation by removal or scouring of sediment. This term is also used to refer to a damaged condition of habitat.

**DEPRESSED STOCK** -- A stock of fish whose production is below expected levels based on available habitat and natural variations in survival levels, but above the level where permanent damage to the stock is likely.

**DISCHARGE**—The volume of water that flows past a given place during a certain amount of time. Discharge is often referred to in cubic feet per second (cfs).

**DISTINCT POPULATION SEGMENT**—“Population” or “distinct population segment,” are terms with specific meaning when used for listing, delisting, and reclassification purposes to describe a discrete vertebrate stock that may be added or deleted from the list of endangered and threatened species.

**ECOLOGICAL INTERACTION** -- The sum total of impacts of one species on another species, or on other members of the same species.

**ECOSYSTEM** -- A complex of biological communities and environment that forms a functioning, interrelated unit in nature.

**EFFECTS OF THE ACTION**—The direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action.

**ENDANGERED SPECIES**—Any species which is in danger of extinction throughout all or a significant portion of its range.

**ESTUARY**—The area where fresh and salt water mix at the mouth of a river. Estuaries are important areas that are used as rearing habitat by many fish species and other animals.

**ESCAPEMENT** -- Those fish that have survived all fisheries and will make up a spawning population.

**ESCAPEMENT FLOOR** -- The lower bound of an escapement range.

**ESCAPEMENT GOAL** -- A predetermined biologically derived number of salmonids that are not harvested and will be the parent spawners for a wild or hatchery stock of fish.

**EVOLUTIONARILY SIGNIFICANT UNIT (ESU)**—A population or group of populations of salmon that 1) is substantially reproductively isolated from other populations and 2) contributes substantially to the ecological/genetic diversity of the biological species. This term is used by NMFS in its status determinations for anadromous salmon populations.

**EXOTIC SPECIES** --Species that were not native to Washington State.

**EXTINCTION** -- The loss of a stock of fish from its original range, or as a distinct stock elsewhere. Individuals of the same species may be observed in very low numbers, consistent with straying from other stocks

**EXTINCT SPECIES**—A species no longer present in its original range or as a distinct species elsewhere.

**FACTORS FOR DECLINE**—Specific land management activities, resource management strategies, or environmental conditions that directly or indirectly affect a salmon stock or its habitat in a manner that reduces its population size.

**FISHERY** -- The process of attempting to catch fish, which then may be retained or released.

**FLOOD PLAINS**—The low area along a stream into which water spreads during a flood.

**4(d) RULE**—This protective rule promulgated by the lead federal agency at the time it makes a final decision to list a species as threatened. This rule is developed only for a threatened species and a single species at a time.

**FRESHET**—A rapid rise in stream flow due to runoff from rain or snowmelt.

**FRY** -- Young salmonids that have emerged from the gravel and are up to one month of age or any cultured salmonid from hatching through fourteen days after being ponded.

**GEAR LIMITS** -- Restrictions placed on sport or commercial fishing gear, which are used to control the take of fish.

**GENETIC DIVERSITY** -- All of the genetic variation within a group. The genetic diversity of a species includes both genetic differences between individuals in a breeding population (within-stock diversity) and genetic differences among different breeding populations (among-stock diversity).

**GENETIC RISK** -- The probability of an action or inaction having a negative impact on the genetic character of a population or species.

**GLIDE** -- A part of a stream that is characterized by a smooth, easy movement of water, usually just upstream of a riffle.

**HABITAT** -- An area that supplies food, water, shelter, and space necessary for a particular animal's existence.

**HABITAT CONSERVATION PLAN**—A planning document that is a mandatory component of an Incidental Take Permit application, also known as an “HCP”. This plan negotiated by the lead federal agency and the applicant, specifies the activities that will be covered by the Incidental Take Permit and how their effects will be minimized and mitigated. This plan also describes the geographic limits of the covered activities.

**HARM**—Defined in regulations implementing the ESA as an act “which actually kills or injures” listed wildlife. Harm may include “significant habitat modifications or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

**HARVEST** -- Fish that are caught and retained in a fishery (consumptive harvest).

**HARVEST RATE** -- The proportion of a returning run or total population of salmonids that is taken by fisheries.

**HATCHERY MANAGEMENT UNIT** -- A group of fish managed to achieve hatchery salmonid escapement objectives. These areas typically support higher harvest rates (percent of returning fish harvested) than wild stock management areas.

**HATCHERY PRODUCTION** -- The spawning, incubation, hatching, or rearing of fish in a hatchery or other artificial production facility (e.g., spawning channels, egg incubation boxes, or pens).

**HATCHERY STOCK** -- A stock that depends upon spawning, incubation, hatching, or rearing in a hatchery or other artificial production facility (synonymous with cultured stock).

**HEALTHY STOCK** -- A stock of fish experiencing production levels consistent with its available habitat and within the natural variations in survival for the stock. This does not imply that the habitat itself is necessarily Ahealthy.@

**HYDRAULIC CONTINUITY**—The natural interconnection of ground water and surface water.

**INBREEDING** -- The mating of related individuals.

**INCIDENTAL HARVEST** -- The capture and retention of species other than those a fishery is primarily opened to target/take. It can also refer to marked fish of the same species.

**INCIDENTAL TAKE**—Take of listed fish or wildlife species that result from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or applicant.

**INSTREAM FLOW**—The level of flow set by the Department of Ecology by regulation to protect instream resources.

**INTEGRATED LANDSCAPE MANAGEMENT** -- A management process that integrates the needs of multiple species across a broad landscape.

**LARGE WOODY DEBRIS (LWD)** -- Conifer or deciduous logs, limbs or root wads twelve inches or larger in diameter.

**LIFE CYCLE**—The series of changes or stages undergone by an organism from fertilization, birth or hatching to reproduction of the next generation.

**LOCALLY ADAPTED POPULATION** -- A population of fish that has developed specific traits that increase their survival in a particular habitat or environment.

**LOWER COLUMBIA** -- That portion of the mainstem Columbia River below Bonneville Dam.

**MACROINVERTEBRATES**—Animals without backbones that are big enough to see with the naked eye. Examples include most aquatic insects, snails and crayfish.

**MAINSTEM**—The principle stream or river of a particular basin.

**MANAGEMENT UNIT** -- A stock or group of stocks which are aggregated for the purposes of achieving a desired spawning escapement objective. See wild and hatchery management unit definitions.

**MASS MARKING** -- The marking of all individuals in a population of fish so that individuals of that population can be identified in subsequent life history stages.

**MAXIMUM SUSTAINED YIELD (MSY)** -- The maximum number of fish from a stock or management unit that can be harvested on a sustained basis, measured as the number of fish that would enter freshwater to spawn in the absence of fishing after accounting for natural mortality.

**MID-COLUMBIA** -- That portion of the mainstem Columbia River between McNary and Bonneville dams.

**MINIMUM SIZE LIMIT** -- A sport fishery regulation that establishes a minimum size (usually length) for the retention of a fish to protect younger individuals in a fish population, or to protect other species of fish.

**MINIMUM VIABLE POPULATION (MVP)** -- The size of a population which, with a given probability, will ensure the persistence of the population for a specified period of time.

**MIXED-ORIGIN STOCK** -- A stock whose individuals originated from commingled native and non-native parents; or a previously native stock that has undergone substantial genetic alteration.

**MIXED-STOCK FISHERIES** --Any fishery that catches fish from more than one stock.

**NATIVE SPECIES** -- A species of fish indigenous to Washington State.

**NATIVE STOCK** -- An indigenous stock of fish that has not been substantially affected by genetic interactions with non-native stocks or by other factors, and is still present in all or part of its original range. In limited cases, a native stock may also exist outside of its original habitat (e.g., captive brood stock programs).

**NATURAL SELECTION** -- Differential survival and reproduction among members of a population or species in nature, due to variation in the possession of adaptive genetic traits. Natural selection, the major driving force of evolution, is a process leading to greater adaptation of organisms to their environment.

**NET PEN** --A fish-rearing enclosure used in lakes and marine areas.

**NON-NATIVE STOCK --** A native species residing in an area outside its original habitat in Washington State (e.g., Chambers Creek steelhead, Soos Creek chinook).

**OFF-CHANNEL HABITAT—**Ponds, channels or wetlands that are connected to the main channel of a stream. Juvenile coho salmon often spend at least part of their fresh water lives in off-channel habitat.

**ORGANIC—**Compounds containing carbon, living or derived from living matter.

**POOL --** A relatively deep, still section in a stream.

**POPULATION --** Synonymous with the term stock.

**PRIMARY MANAGEMENT UNIT --** A stock or group of stocks for which a specific spawning escapement goal is established with the intention of managing all impacting fisheries to meet that goal.

**PRODUCTIVITY --** A measure of the capacity of a biological system. The efficiency with which a biological system converts energy into growth and production.

**PROPERLY FUNCTIONING CONDITION (PFC)—**State of the physical, chemical, and biological aspects of watershed ecosystems which will sustain a healthy salmonid populations. Properly functioning condition generally defines a range of values for several measurable criteria rather than specific, absolute values.

**QUOTA --**A number of fish allocated for harvest to a particular fishing group or area.

**RECOLONIZATION --** The reestablishment of a salmonid stock in a habitat that the species previously occupied.

**RECOVERY—**The process by which the decline of an endangered or threatened species is arrested or reversed, and threats neutralized so that its survival in the wild can be ensured. The goal of the ESA is for the recovery of listed species to levels where protection under the ESA is no longer necessary.

**RECRUITS --** The total numbers of fish of a specific stock available at a particular stage of their life history.

**REGIONAL FISHERIES ENHANCEMENT GROUP --** 12 regional fisheries enhancement (volunteer) groups funded under recreational and commercial salmon license fees, allowed to do habitat enhancement projects plus rear and release salmon into state waters under the direction of WDFW.

**RELINQUISHMENT—**The procedure whereby a right to divert or withdraw water is surrendered to the state. Relinquishment includes the forfeiture or abandonment of a right coupled with recognition by the state that foreiture or abandonment has occurred.

**REMOTE SITE INCUBATOR --** A lightweight, dark colored plastic barrel incubator that employs plastic substrate (hatching medium), and can be sized to accommodate 5,000 to 125,000 eggs per incubator. They are used mainly for incubating chum salmon eggs.

**RESIDENT SALMONID --** Those members of the family Salmonidae which spend their entire lives in freshwater.

**RIFFLE --** A shallow gravel area of a stream that is characterized by increased velocities and gradients, and is the predominate stream area used by salmon for spawning.

**RIPARIAN HABITAT** --The aquatic and terrestrial habitat adjacent to streams, lakes, estuaries, or other waterways.

**RISK ASSESSMENT** -- Evaluating the probability of an action having a negative impact that is not within prescribed limits or acceptable bounds.

**RIVERINE HABITAT** --The aquatic habitat within streams and rivers.

**RUN** -- The sum of stocks of a single salmonid species which migrates to a particular region, river, or stream of origin at a particular season.

**RUNOFF**—The part of rain and snowmelt that runs over the ground and into a stream or other water body.

**SALMONID** -- Any member of the taxonomic family Salmonid, which includes all species of salmon, trout, char, whitefish, and grayling.

**SASI**—The name of the original inventory “Salmon and Steelhead Stock Inventory” (SASSI), has been changed to “Salmonid Stock Inventory” to reflect the broadened inventory scope encompassing all wild salmonids.

**SASSI** -- Salmon and Steelhead Stock Inventory. A cooperative program by the Department of Fish and Wildlife and Washington Treaty Indian tribes to inventory and rate the status of salmon and steelhead stocks on a recurring basis.

**SCOUR**—Removal of sediment from the streambed by flowing water.

**SECONDARY MANAGEMENT UNIT** -- A stock or group of stocks for which escapement is that which occurs primarily as a result of not being caught in fisheries directed at commingled primary stocks. A group of fish for which an escapement goal may not be established.

**SECONDARY PROTECTION** -- Management activities that provide protection to stocks or runs of salmon after they have been subjected to harvest in mixed stock areas.

**SEDIMENT**—The silt, sand, rocks, wood and other solid material that gets washed out from some places and deposited in others.

**SELECTIVE BREEDING** -- The intentional selection of individual spawners in artificial production programs to produce particular traits in subsequent generations.

**SELECTIVE FISHERY** -- A fishery that allows the release of non-targeted fish stocks/runs, including unmarked fish of the same species.

**SELF-SUSTAINING POPULATION** -- A population of salmonids that exists in sufficient numbers to replace itself through time without supplementation with hatchery fish. It does not necessarily produce surplus fish for harvest.

**SMOLT** -- A juvenile salmonid that is undergoing the physiological change to migrate from fresh to salt water.

**SPECIES**—Any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.

**STOCK --** The fish spawning in a particular lake or stream(s) at a particular season, which to a substantial degree do not interbreed with any group spawning in a different place at the same time, or in the same place at a different time.

**STOCK ORIGIN --** The genetic history of a stock.

**STOCK STATUS --**The current condition of a stock, which may be based on escapement, run size, survival, or fitness level.

**STREAMBED—**The stream bottom.

**STREAMFLOW—**The rate at which water passes a given point in a stream or river, usually expressed in cubic feet per second. (cfs)

**SUPPLEMENTATION --** The use of artificial propagation to maintain or increase natural production while maintaining the long-term fitness of the target population, and keeping the ecological and genetic impacts to non-target populations within specified biological limits.

**TARGETED FISHERY --** A harvest strategy designed to catch a specific group of fish.

**TERMINAL FISHING AREA --** A fishing area near the ultimate freshwater destination of a stock where a salmonid stock or run has separated from other stocks/runs.

**THREATENED SPECIES—**Any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

**TREATY RIGHTS—**Rights of Indian tribes that were reserved by the 1855 Stevens Treaties between Indian tribes and the United States government. These reserved rights include the right of “taking fish at all usual and accustomed grounds and stations” as well as the “privilege of hunting, gathering roots and berries and pasturing horses on open and unclaimed lands”. Certain of these rights have been fairly well defined by judicial decisions, such as those pertaining to treaty fishing.

**TREATY TRIBES --** Any Indian tribe recognized by the United States government, with usual and accustomed fishing grounds, whose fishing rights were reserved under a treaty and have been affirmed by a federal court.

**TRIBUTARY—**A stream that feeds into a larger stream. Also called a feeder stream.

**TRUST WATER RIGHT—**A water right acquired by the state by purchase, lease or receipt of gift of an existing water right, or by creation of conservation water savings resulting from state conservation expenditures.

**UNKNOWN STOCK --** This description is applied to stocks where there is insufficient information to identify stock origin or stock status with confidence.

**UPPER COLUMBIA --** That portion of the mainstem Columbia/Snake River above McNary Dam.

**VIALE POPULATION --** A population in a state that maintains its vigor and its potential for evolutionary change.



**WATER RIGHT**—A legal authorization to use a certain amount of public water for specific beneficial use or uses.

**WATER RIGHT CERTIFICATE**—A legally recorded document issued to the applicant upon a proper showing to the department of ecology that the water development authorized by a permit has been completed and water has been put to beneficial use.

**WATER RIGHT CLAIM**—A written statement made by a person claiming a right to use water. Claims were required to be filed by legislation passed in 1969 for water uses that were not established under permit system in current law. A claim may represent a valid water right but retains uncertainty until affirmed by a water rights adjudication.

**WATER RIGHT PERMIT**—A document granting permission to an applicant to develop the facilities necessary to use water and initiate beneficial use.

**WATERSHED** -- A basin including all water and land areas that drain to a common body of water.

**WILD MANAGEMENT UNIT** -- A management unit where fisheries are managed to achieve wild salmonid escapement objectives.

**WILD STOCK** -- A stock that is sustained by natural spawning and rearing in the natural habitat, regardless of parentage (including native).

**WILD STOCK INITIATIVE (WSI)** -- A cooperative program between the state and western Washington Indian tribes that is intended to maintain and restore healthy salmon and steelhead stocks and habitats.

**WITHIN-STOCK DIVERSITY** -- The overall genetic variability among individuals of a single population or stock.